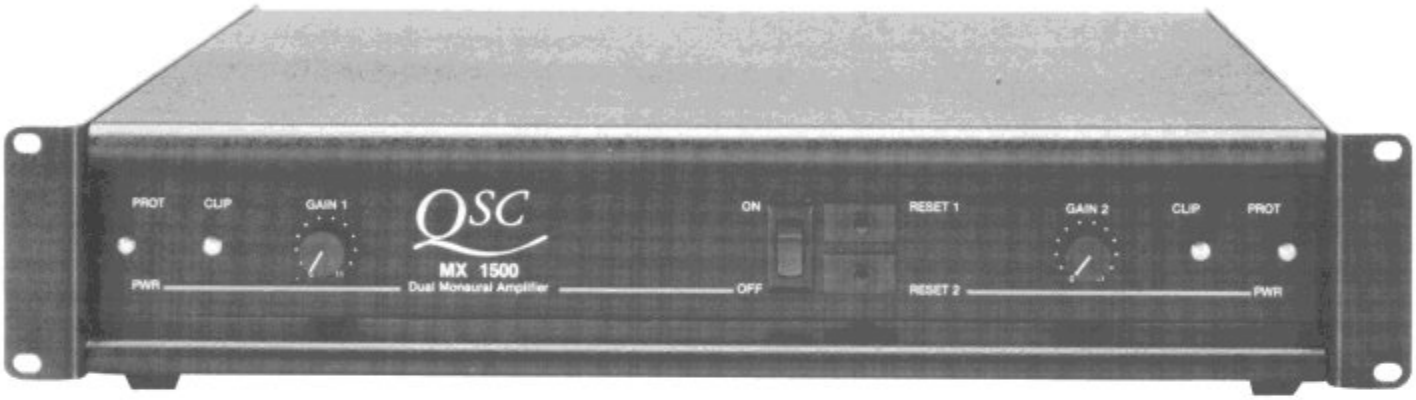
MX

S E R I E S

MX 1500



The QSC MX 1500 is designed for maximum power into today's high power, high performance speaker systems. These loads are often designed at 4 ohms, which means that the impedance may dip well below that at some frequencies. The MX 1500 delivers tremendous power in only two rack spaces to assure the highest level of performance under the most demanding conditions.

The MX 1500 uses fan cooling and high efficiency output circuitry to minimize operating temperatures. Dual monaural construction provides completely separate channels and power supplies for fail safe reliability and freedom from crosstalk and interference.

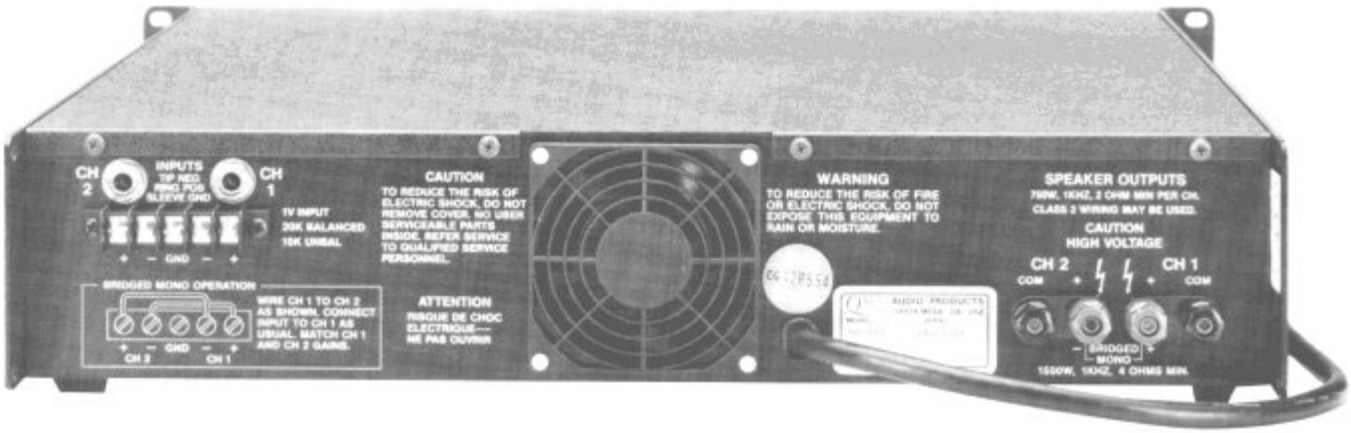
QSC is a pioneer in premium quality, high power, low profile amplifiers, with thousands of units installed in touring systems and concert halls worldwide. The MX 1500 puts this proven technology to work in a more economical package. The result is proven reliability at a new level of value.

FEATURES:

- **Low Profile (2 Rack Spaces)**
- **Fan Cooled**
- **Dual Mono Configuration**
- **High Efficiency Output**
- **Modular Construction**
- **Direct Metal Mounted Power Transistors**
- **Recessed Front Panel Controls**
- **Auto Back-Up in Bridged Mode**
- **Three Year Warranty**

QSC

A U D I O


CH 2
INPUTS
TIP HOT
RING POS
SLEEVE GND
CH 1
1V INPUT
20K BALANCED
10K UNBAL
+ – GND – +
BRIDGED MONO OPERATION
WIRE CH 1 TO CH 2 AS SHOWN. CONNECT INPUT TO CH 1 AS USUAL. MATCH CH 1 AND CH 2 GAINS.
+ – GND – +
CH 2
CH 1
CAUTION
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICE TO QUALIFIED SERVICE PERSONNEL.
ATTENTION
RISQUE DE CHOC ELECTRIQUE— NE PAS OUVRIR
WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
SPEAKER OUTPUTS
750W, 1KHZ, 2 OHM MIN PER CH.
CLASS 2 WIRING MAY BE USED.
CAUTION
HIGH VOLTAGE
CH 2
COM + – +
CH 1
COM
– BRIDGED MONO +
1500W, 1KHZ, 4 OHMS MIN.

MX 1500 SPECIFICATIONS

OUTPUT POWER (per channel):
Continuous Average Output Power both channels driven.
8 ohms, 20-20 KHz 0.1% THD 330
8 ohms, 1KHz 1% THD 360
4 ohms, 20-20 KHz 0.1% THD 500
4 ohms, 1 KHz 1% THD 570
2 ohms, 1 KHz 1% THD 750 ± 1 dB

BRIDGED MONO OPERATION:
16 ohms: 20-20 KHz 0.1% THD 660
16 ohms, 1 KHz 1% THD 720
8 ohms, 20-20 KHz 0.1% THD 1000
8 ohms, 1 KHz 1% THD 1100
4 ohms, 1 KHz 1% THD 1500 ± 1 dB

DISTORTION (8 ohms):
THD, 20-20 KHz, from 250 milliwatts to rated power, less than 0.1%, 0.015% typical.
SMPTE-IMD, less than 0.02%, 250 milliwatts to rated power.

FREQUENCY RESPONSE: 20-20 KHz, ±0.1 dB. 8-300 KHz, +0/–3 dB.

DAMPING FACTOR: Greater than 200.

SLEW RATE: 20V per microsecond.

DYNAMIC HEADROOM: 3 dB or 1000 watts instantaneous power @ 4 ohms.

NOISE: – 100 dB, 20-20 KHz.

SENSITIVITY: 1V RMS for rated power (8 ohms).

INPUT IMPEDANCE: 10K unbalanced, 20K balanced.

CONTROLS: Recessed front-mounted Gain controls, AC circuit breakers, AC switch.

INDICATORS (each channel):
Red/Green LED for Protect/Power On, Red LED Clip indicator.

CONNECTORS:
Inputs: 1/4-inch RTS (ring, tip, sleeve) and 3-terminal barrier strip wired in parallel.
Speakers: 5-way binding posts on 3/4-inch centers.

COOLING:
Fan cooled (back to front) combined with high-efficiency output stage for reduced operating temperatures. Unique circuit configuration allows direct metal mounting of output devices for reduced thermal stress during short-term peaks.

AMPLIFIER PROTECTION:
Continuous short circuit*, open circuit, over-temp, ultrasonic, and RF protection. Stable into reactive and mismatched loads. Inputs protected from overload. All protection completely independent on each channel.
"Output Averaging" short circuit protection (US Patent 4,321,554)

LOAD PROTECTION:
Individual Channel Load Grounding™ output relays provide DC fault and sub-audio protection, with 3-second turn-on delay and fast turn-off or loss-of-power muting. AC pop suppression capacitors across transformer primaries.

OUTPUT CIRCUIT TYPE: Fully complementary, two-level high-efficiency design.

OUTPUT DEVICES: (Total) 24.

POWER SUPPLY:
Dual power supplies and AC circuit breakers. Common AC cord and switch.

POWER REQUIREMENTS: 100, 120, 220, or 240V 50-60 Hz.

POWER CONSUMPTION: 12 AMPS at 120 Volts.

DIMENSIONS: 3.5" tall (2 rack spaces), 19" wide, 17.9" deep.

WEIGHT: 47 lbs net, 52 lbs shipping.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The power amplifier shall contain all solid state circuitry using complementary silicon semiconductors. It shall be capable of operating from 100, 120, 220, or 240V, 50-60 Hz AC mains.

The amplifier shall contain two independent channels, with separate AC breakers, power transformers, and protective systems. Each channel shall have independent protective circuitry against open circuit, short circuit, or mismatched loads; independent load protection circuits for turn on/turn off transients including momentary AC dropouts and DC faults within or preceding the amplifier. All protective circuits except AC circuit breaker shall be self-resetting. The remaining channel shall continue to operate, in stereo or bridged mono mode. The two channels share a common AC power cord and AC switch.

Each channel of the amplifier shall be capable of meeting the following performance criteria, with both channels driven simultaneously: Output power into 8 ohms, 330 watts, 20-20 KHz, less than 0.1% THD. Output power into 4 ohms, 500 watts, 20-20 KHz, less than 0.1% THD. Output power into 2 ohms, 750 watts, 1KHz, ± 1 dB less than 1% THD. Frequency response shall be 20-20 KHz with less than 0.1% deviation. The voltage gain shall be 34 dB at full gain. The input sensitivity for rated 8 ohm power shall be 0.98 VRM. Balanced bridging input circuitry shall be standard, and the amplifier shall meet all performance criteria in the balanced or unbalanced mode. Input impedance shall be 20k ohms balanced and 10k ohms unbalanced. Noise levels shall be at least 100 dB below rated power at full gain. IHF damping factor shall exceed 200. The amplifier shall be fan cooled. Air flow shall be from back to front. Each channel shall have the following controls, functions, and indicators: Front mounted gain controls. Green/Red LED for Power On/Protect. Red LED clipping indicator for output clipping greater than 0.1%. Balanced/Unbalanced input jacks of the 1/4-inch and barrier strip screw terminal types. Speaker connectors shall be five way binding posts on 3/4 inch centers. The amplifier chassis shall feature a permanently attached AC cord. The chassis shall occupy two rack spaces (3.5"). Chassis depth shall be 17.9". Weight shall be 47 lbs. The power amplifier shall be the QSC Audio Products Model MX 1500.

QSC
AUDIO

1926 Placentia Avenue, Costa Mesa, CA 92727 (714) 645-2540

QSC STEREO AMPLIFIER MODEL MX 1500

NOTES
1. ALL RESISTORS IN OHMS, 1/4-WATT, 5% UNLESS SHOWN.
2. ALL CAPACITORS IN uF, 100V UNLESS SHOWN.
3. HEAVY LINE SHOWS MAIN SIGNAL PATH.
4. USE QSC REPLACEMENT TRANSISTORS ONLY.
5. "FP", FLAMEPROOF RESISTORS.
6. "NP", NON-POLAR ELECTROLYTIC CAPACITORS.
7. B1-B4, BRIDGE RECTIFIERS.
8. Z13-Z17, ZENER DIODES.
9. LD2, LD5, FRONT PANEL LED'S.
10. AUDIO GROUND MARKED "A". CIRCUIT GROUND MARKED "C".

TRANSFORMER AND OUTPUT CONNECTOR PINS

CONNECTING WIRES ON PCB